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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,043	09/26/2003	Daniel White Sexton	125836	1099

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EXAMINER	
SINKANTARAKORN, PAWARIS	
ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/672,043	SEXTON ET AL.	
	Examiner	Art Unit	
	PAO SINKANTARAKORN	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 are currently pending in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott et al. (US 5,953,340).

Regarding claim 1, Scott et al. disclose a network communication device for bi-directional communication networks, comprising:

a first portion (see Figure 6 reference numeral 172, switch module) connectable to a first point and a second point on the bi-directional communication network (see Figure 6, a first point corresponds to the converter 174 and a second point corresponds to interface circuits 160), the first portion being configured to manage collisions among a first set of messages transmittable from the first point to the second point (see column 10 lines 2-4 and 47-58, the converter transmits the data to the switch module, where the switch module filters the data packets to avoid collisions); and

a second portion (see Figure 6 reference numeral 176, repeater module) connectable to the first point and the second point (see Figure 6, a first point corresponds to the converter 174 and a second point corresponds to interface circuits

160), the second portion being configured to transmit free of collision management a second set of messages transmittable from the second point to the first point (see column 10 lines 45-50, the repeater module transmits received data to all of the ports, which corresponds to free of collision management);

regarding claim 2, the first and second messages are selected from the group consisting of electrical messages, optical messages, acoustic messages, and any combinations thereof (see column 4 line 50, Ethernet LAN);

regarding claim 3, the first portion is a network switch (see Figure 6 reference numeral 172, switch module);

regarding claim 4, the network switch is an analog switch or a digital switch (see column 4 line 50, digital switch)

regarding claim 5, the second portion is a network hub (see Figure 6 reference numeral 176, repeater module);

regarding claim 6, the network hub is an analog hub or a digital hub (see column 4 line 50, digital repeater);

regarding claim 7, the first and second portions are separate devices or a single device (see Figure 6 reference numerals 172 and 176);

regarding claim 8, further comprising a plurality of network connections for connecting the first and second portions to the first and second points (see Figure 6, a first point corresponds to the converter 174 and second point corresponds to interface circuits 160);

regarding claim 9, the plurality of network connections are standardized Ethernet cable connections (see column 4 line 50, Ethernet LAN).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 10, 11, and 13-20 are rejected under 35 U.S.C. 102(a) as being anticipated by Matteson et al. (US 7,164,684).

NOTE: The Examiner cited the US Patent 7,164,684, which has prior publication data of US 2002/0172224 with publication date of November 21, 2002, instead of the Publication because the drawings in US 7,164,684 are easier to read. The Examiner has confirmed that the portions the Examiner has relied upon can be found in both US 7,164,684 and US 2002/0172224. Therefore, US 7,164,684, which has prior publication date of November 21, 2002, qualifies as a 102(a) reference.

Regarding claim 10, Matteson et al. disclose a bi-directional communication device comprising:

a hub portion (see column 6 lines 9-31, hub module);

a switch portion (see column 6 lines 9-31, switch module);

a first plurality of connections for connecting the hub portion to a plurality of first points (see column 9-31, a hub or a router module is connected to a network, which comprises a plurality of nodes, wherein a plurality of nodes corresponds to the plurality

of first points) on a bi-directional communication network and to a second point on the bi-directional communication network (see column 6 lines 9-31, a CPU is connected to a hub, a switch, a repeater, and a router, wherein a CPU corresponds to the second point) for transmitting messages from the second point to the first points (see column 2 lines 27-35, it is implied that there are message transmissions from the CPU to the plurality of nodes since the CPU is connected to the plurality of nodes in the network); and

a second plurality of connections for connecting the switch portion to the plurality of first points and to the second point (see column 6 lines 9-31, a CPU is connected to a network, which comprises plurality of nodes, through a hub, a switch, a repeater, and a router) for transmitting messages from the same first points to the second point (see column 2 lines 27-35 and column 6 lines 9-32, it is implied that there are message transmissions from the plurality of nodes to the CPU as long as the CPU is connected to the network; when plurality of nodes transmit messages to the connectivity device, the CPU utilizes communications with storage device, hub module, switch, repeater, router, and port, to execute functions of connectivity device);

regarding claim 18, claim 18 recites a method having steps essentially similar to the connections recited in claim 10 above. Therefore, claim 18 is rejected for the same reason as claim 10;

regarding claim 11, the hub portion is configured to transmit first messages from the second point to the plurality of first points (see column 2 lines 27-35, a hub or a

router module is capable of transmitting and receiving communication transmissions between CPU and a network, which comprises a plurality of nodes);

regarding claim 13, the switch portion is configured to transmit second messages from the plurality of first points to the second point (see column 2 lines 27-35, a switch module is capable of transmitting and receiving communication transmissions between CPU and a network, which comprises a plurality of nodes);

regarding claim 14, the switch portion is configured to manage collisions among the second messages (see column 2 lines 54-57, switches are used to reduce collisions in a network);

regarding claims 15 and 19, the network switch and the network hub are analog devices, digital devices, or any combination thereof (see column 1 lines 6-7, computer network is considered digital network);

regarding claims 16 and 20, the hub and switch portions are separate devices or a single device (see Figure 5 reference numerals 158, 162, 166, and 172);

regarding claim 17, the first and second plurality of connections are standardized Ethernet cable connections (see column 1 line 21, Ethernet network).

Claim Rejections - 35 USC § 103

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matteson et al. in view of Kalkunte et al. (US 2002/0034187).

Regarding claim 12, Matteson et al. disclose all the subject matter of the claimed invention previously discussed except a bi-directional communication device, wherein the hub portion is configured to transmit the first messages without collision management.

However, the invention of Kalkunte et al. from the same or similar fields of endeavor at the time of the invention disclose a hub portion configured to transmit the

first messages without collision management (see paragraph 6, Hubs essentially copy and broadcast incoming data to a plurality of spokes of the hub; since the data is broadcasted, there is no collision management).

Thus, it would have been obvious to the person of ordinary skill in the art to implement a hub portion configured to transmit the first messages without collision management into the network communication device of Matteson et al.

The motivation for implementing a hub portion configured to transmit the first messages without collision management is that it provides broadcasting ability to the network communication device.

Response to Arguments

10. Applicant's arguments with respect to claims 9-20 have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's arguments, regarding claims 1-9, filed 4/17/2008 have been fully considered but they are not persuasive.

On page 1-2 of the Remarks, the Applicant submits that Scott fails to teach "a second portion connectable to the first point and the second point, the second portion being configured to transmit free of collision management a second set of messages transmittable from the second point to the first point." The Examiner respectfully disagrees. It is important to note that, during patent examination, the Examiner is entitled to interpret the claims as broadly as the claim language allows. The Examiner encourages the Applicant to amend the claim(s) to better reflect what the Applicant

intends to claim as the invention. The structure of "the first point" is not defined anywhere in the claim. Therefore, the Examiner broadly interprets the interface circuits 160 in the dash line as one entity to be "the first point."

Thus, in view of the above reasoning, the Examiner believes that the rejection should be sustained.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. **Examiner's Note**: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as

well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAO SINKANTARAKORN whose telephone number is (571)270-1424. The examiner can normally be reached on Monday-Thursday 9:00am-3:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pao Sinkantarakorn/
Examiner, Art Unit 2616

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit 2616

PS